

EXHIBIT

c5
c5

CA
A
-59D22

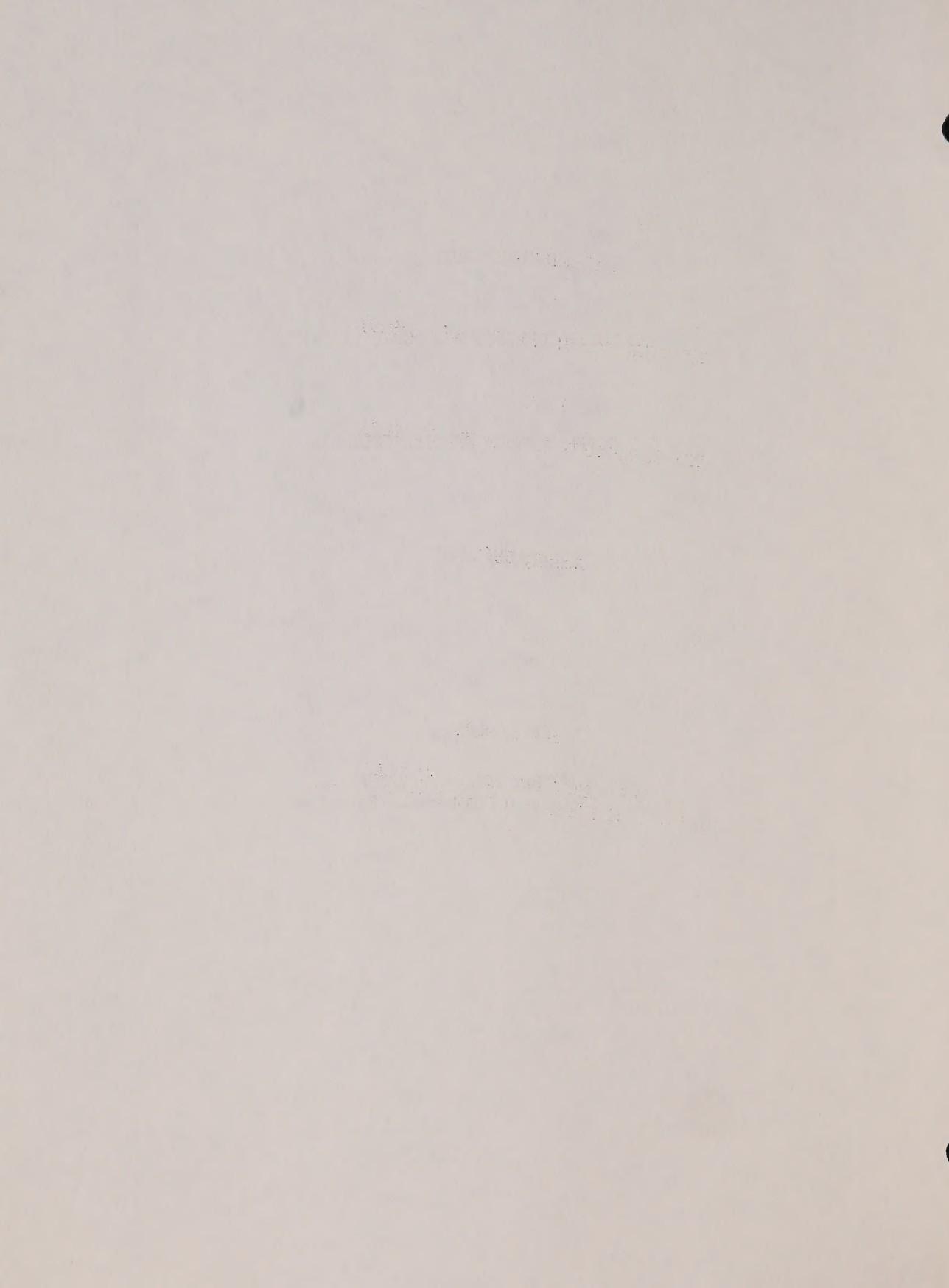
BRITISH COLUMBIA
1960 BRIEF
TO
RAND COAL COMMISSION

3 1761 120629811

A SUBMISSION
TO
THE ROYAL COMMISSION ON COAL (1959)
FROM
THE GOVERNMENT OF BRITISH COLUMBIA

April, 1960

Presented by
THE HONOURABLE W. K. KIERNAN
Minister of Mines and Petroleum Resources



Introduction

In the year 1835, coal was discovered on the east coast of Vancouver Island at Suquash. From that date to the present coal has been mined continuously in British Columbia. The production increased progressively to a yearly total of 3,515,944 tons in 1910, then gradually declined to 882,962 tons in 1958. The coal production in 1959 was about one-fourth that of 1910. The decline has been due primarily to the increasing use of diesel fuel, oil, gas, and electricity; competitive fuels which lend themselves to cleanliness and more or less automation. Ships and railroads that at one time used coal exclusively are now either oil-fired or diesel-powered. The use of oil and gas for the heating of large buildings and homes is increasing rapidly.

Coal Deposits

There are nine major coalfields in British Columbia; namely, the Crowsnest, Comox, Nanaimo, Merritt, Telkwa, Peace River, Groundhog, Hasler Creek - Pine River, and Hat Creek coalfields.

Crowsnest Coalfield

This coalfield is the largest in the Province in terms of reserves. It lies in the southeastern part of British Columbia, and is bounded on the south by the State of Montana and by the Province of Alberta on the east. The reserves as estimated by B. R. MacKay, of the Geological Survey of Canada, are in the neighbourhood of 5,000,000,000 tons of probable recoverable coal. The coal deposits are of Lower Cretaceous age and are ranked as medium volatile bituminous. The B.T.U.

content generally runs close to 14,000 per lb. and the coking quality is usually excellent. In fact, this field constitutes one of the most important reserves of coking-coal for metallurgical purposes on the continent.

While several companies have interests in this field, only one colliery, the Michel Colliery of The Crow's Nest Pass Coal Company Limited, is operating in this area.

Comox Coalfield

This coalfield extends from Tsable River northwest to Campbell River, a distance of about 45 miles, and inland from the east coast of Vancouver Island for distances ranging from 2 to 13 miles. The coal is of high volatile "A" bituminous rank and is of Upper Cretaceous age.

The Cumberland area of this field has been mined extensively, and the reserves therein are more or less depleted. The Tsable River area to the south contains considerable reserves of coal, which are at present being exploited by the Tsable River mine. The coal is excellent for steam raising, but the high sulphur content makes it unsuitable for the manufacture of metallurgical coke.

The probable reserves of coal in the Comox coalfield are considered to be approximately 12,000,000 tons. Due to the lack of detailed information, this estimate may be conservative.

Digitized by the Internet Archive
in 2024 with funding from
University of Toronto

<https://archive.org/details/31761120629811>

Nanaimo Coalfield

This coalfield consists of the following areas:- the Extension, Wellington, Nanaimo, and South Wellington - Cassidy. The first three areas were worked extensively for about fifty years and are now considered to be depleted of reserves. There are possible reserves of coal lying to the east of the abandoned mines in the South Wellington - Cassidy area and the east shore-line of Vancouver Island. This coal would be uneconomic at the present time due to the considerable depth of the seam and the physical and structural difficulties encountered during mining operations. The seam at depth is subject to "out-bursts", and the large barren areas met with in previous operations have made the planning and the mining of the coal most difficult and costly. The coal is very friable, and consequently the run-of-mine coal contains a low percentage of lump.

Merritt Coalfield

This coalfield is in south central British Columbia near the town of Merritt. B. R. MacKay estimates the possible reserves in this area at about 35,000,000 tons of probable recoverable coal. The outcrop coal has been mined quite extensively, leaving the reserves of coal to be mined at depth. The coal is of high volatile "B" bituminous rank and is of Tertiary age.

While the estimated reserves are of considerable magnitude, it is considered that extensive geological work and diamond-drilling is required to prove that these reserves exist.

Telkwa Coalfield

This coalfield is located on tributaries of the Telkwa River near Telkwa, on the Canadian National Railway. The coal is of medium volatile bituminous rank of Upper Cretaceous age, and is excellent for steam raising.

The field has an area of about 7 square miles and contains five seams of coal, three of which are more than three feet in thickness. Generally, the coal measures are covered by a thick mantle of alluvium and glacial drift, which, in addition to the many faults, folds, and intrusions of volcanic rock, has presented serious problems to mining and to the accurate assessment of reserves. Due to the foregoing geological conditions, the field is divided into a number of small, localized coal deposits.

The reserves of probable recoverable coal have been estimated at about 2,240,000 tons, with considerable possible reserves in addition.

Peace River Coalfield

This coalfield centres around the Peace River Canyon area and contains eight seams ranging from $3\frac{1}{2}$ to $5\frac{1}{2}$ feet in thickness. The coal is high-grade, low volatile bituminous and is of Lower Cretaceous age. Mining has been carried on on a small scale for several years for local use only, at Fort St. John and Dawson Creek.

It is estimated that there is 67,200,000 tons of probable recoverable coal in this area.

Groundhog Coalfield

This unexploited coalfield lies in rugged mountainous territory at the headwaters of the Skeena River about 150 miles north of Hazelton, which is on the Canadian National Railway.

There are four seams of commercial thickness, and the coal is largely low volatile bituminous and anthracite. It is estimated that the mineable reserves in this area are in the neighbourhood of 900,000,000 tons of probable and possible coal of Lower Cretaceous age.

Hasler Creek - Pine River Coalfield

The coal deposits in this field have been tested in three locations only; namely, the Hasler Creek, Willow Creek, and Noman Creek areas. These creeks are tributaries of the Pine River, which flows northeasterly to the Peace River. The field is transversed by both the John Hart Highway and the Pacific Great Eastern Railway, about 120 miles north of Prince George.

The areas reported above are estimated to contain 40.8 million tons of recoverable coal which is of low to medium volatile rank, low in ash, high in heat values (13,000 to 15,000 B.T.U. per pound), and contains about 0.5 per cent sulphur. The coking characteristics are fair.

Hat Creek Coalfield

This coalfield lies approximately halfway between Lillooet and Ashcroft, and about 16 miles from each. The coal deposits are Tertiary lignites. Two railways are in close proximity to the deposits, the Pacific Great Eastern at Pavilion, about 13 miles to the northwest, and the Canadian Pacific at Ashcroft.

During 1957 and 1959, Dolmage, Mason & Stewart, Ltd., consulting engineers, were employed to determine the quantity and quality of the coal in this field. They estimate the proven reserves at 340 million tons of coal by selective open-pit mining and averaging 6,180 B.T.U. per pound.

Market Trends

In the year 1942, the tabulation of coal production of the Province in terms of markets was started by the Department of Mines. In the following paragraphs the bracketed figures refer to comparative 1958 production.

The net production of coal in 1942 was 2,170,739 short tons (802,591), of which 1,823,539 tons (564,327) was distributed to the various markets as follows:- railway use - 502,765 tons (63,810); domestic and industrial use in Alberta, Saskatchewan, Manitoba, and Ontario - 260,066 tons (228,254); domestic and industrial use in British Columbia - 732,944 tons (200,672); exported to the United States - 213,913 tons (68,300); and ships' bunkers - 113,851 tons (3,291).

In addition to the above, 14,854 tons of coal (224,408) was used in making 96,157 tons of coke (173,919), of which 34,971 tons (73,726) was exported to the United States, and 61,857 tons (87,515) used in British Columbia.

In reviewing the foregoing, it will be noted that the use of coal on railways has been cut drastically from 502,765 to 63,810 tons of coal. This market is rapidly being eliminated by the increasing use of oil-fired and diesel-driven engines.

The shipment eastward of domestic and industrial coal has dropped from 260,066 to 228,254 tons. This market has not dropped as severely as others, due in part to the subsidy and to the fact that the bulk of these orders are for industrial use.

The domestic and industrial market in British Columbia has been severely curtailed due to the increasing use of oil and gas fuels, as indicated by the drop from 732,944 to 200,672 tons.

The increasing use of oil and gas is reflected in the drop in exports to the United States from 213,913 to 68,300 tons.

With the exception of a few small coastal vessels, the demand for bunker coal has just about disappeared, the ships are now fired almost exclusively by oil.

The Future of Coal

The increasing use of the competitive fuels; oil, gas, and electricity, has resulted in the gradual closing down, one by one, of the producing mines of the Province. This in itself is

regrettable on several counts. It is generally not economical to re-open them, and they bar access to virgin coal beyond, except through expensive shafts. While the loss of the pits themselves is serious, the loss of working personnel is most serious. The men, on being laid off at the mines, find work elsewhere and would not be available in the future. The training of young men for replacements is at a very low ebb.

It is felt that, due to the rapid increase in our population, all of our sources of energy will be needed in the not too distant future. It is believed that in the best interests of the coal industry in particular and the national welfare as a whole, a national policy regarding energy be instituted so that our power resources are conserved and used to the best advantage. The maintenance of our present coal mining industry is, we believe, imperative to these ends.

The present freight subsidy on coal from the eastern part of the Province to industrial markets in the Provinces of Manitoba and Ontario is most helpful, and should be maintained or increased when necessary.

The subsidy on coal exported to foreign countries via ships has put new life into the mines in the Crowsnest field. This timely aid could be the means of creating a large overseas market for our coking coal from this district, which has a high potential.

Thermal power generation has not, as yet, had much application in the Province, except for local power requirements of certain industries and mines. This type of power generation should be encouraged wherever feasible, as it can be highly competitive with other sources of power when the power plant can be installed at or near the coal mines. The Hat Creek coalfield, with its proven reserves of 340,000,000 tons of coal, is a source of comparatively cheap thermal power that could be, and should be, exploited in the future. Its potential for power is vast.

There are other smaller coalfields in isolated districts, such as the Telkwa coalfield, that could possibly be used for the generation of thermal power. Assistance from the Federal Geological Department in delineating the reserves of these isolated fields would be most helpful to the small mining companies who cannot themselves afford such work.

On Vancouver Island there is only one mine, the Tsable River mine of Canadian Collieries Resources Limited, operating in the Comox coalfield. It has been scheduled to close May, 1960, because of insufficient markets. It supplies coal for domestic and industrial use on the coast; in fact, it is the only producing coal mine left on the Pacific coast. Every effort and aid should be given this operation, as many people still must rely on this cheap source of heating for their homes.

Respectfully submitted on behalf of the Government of British Columbia.

